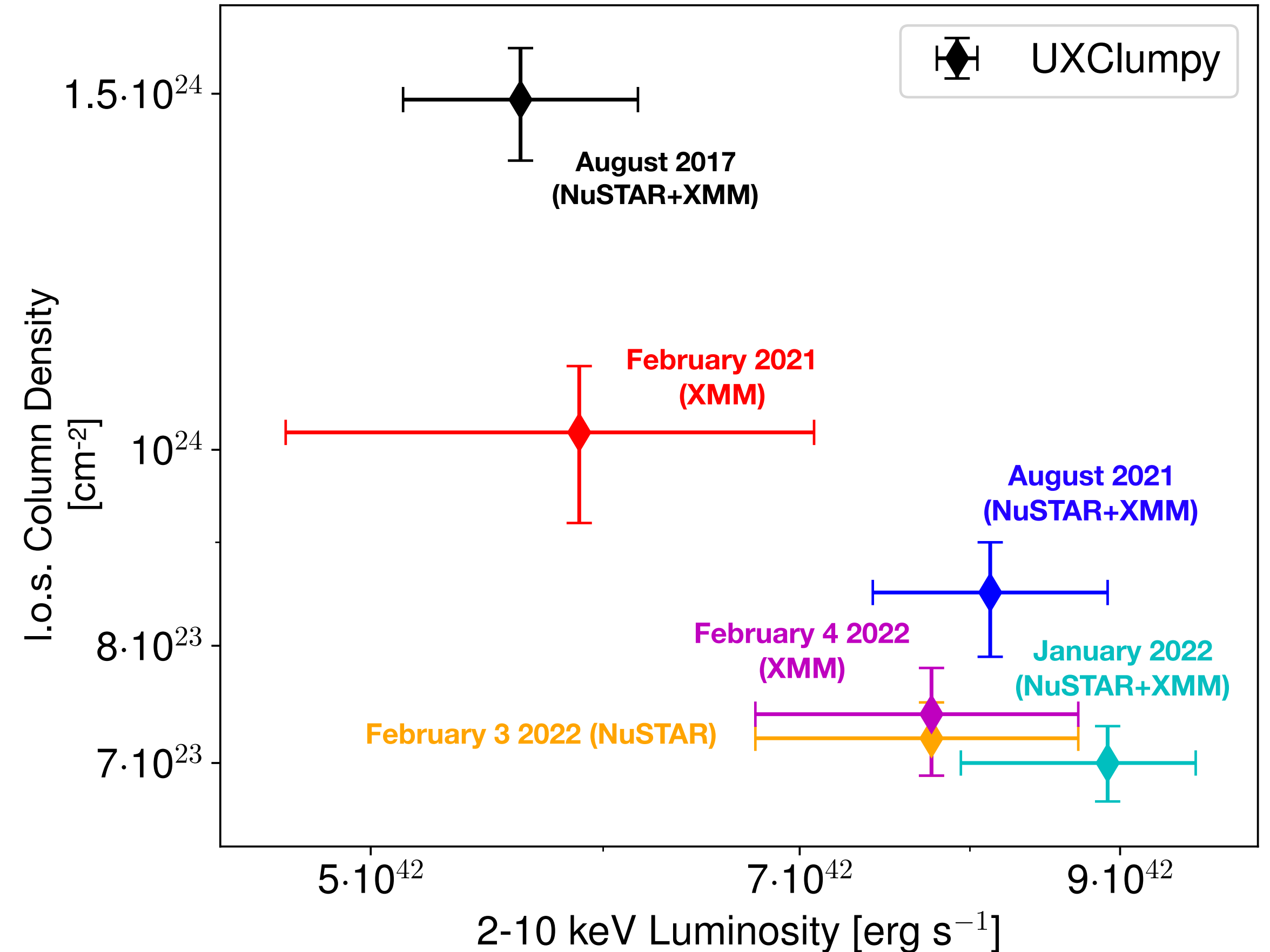


Piercing through the clouds: a multiwavelength study of obscured accretion in nearby supermassive black holes (PI: S. Marchesi; INAF-OAS Bologna)



- Goal of the project: complete characterization of the obscuring medium surrounding accreting supermassive black holes in the nearby Universe, using X-ray data from different facilities
- INAF co-leading institution in this *Clemson-INAf CT-AGN project* (<https://science.clemson.edu/ctagn/>) started by the PI in collaboration with Clemson University (SC, USA)
- Between Fall 2022 and today there have been six papers published on ApJ and A&A related to this project.
- One article led by the PI (Marchesi+22) on the monitoring of the variable (in luminosity and medium column density, as shown in the figure on the right) heavily obscured AGN NGC 1358.

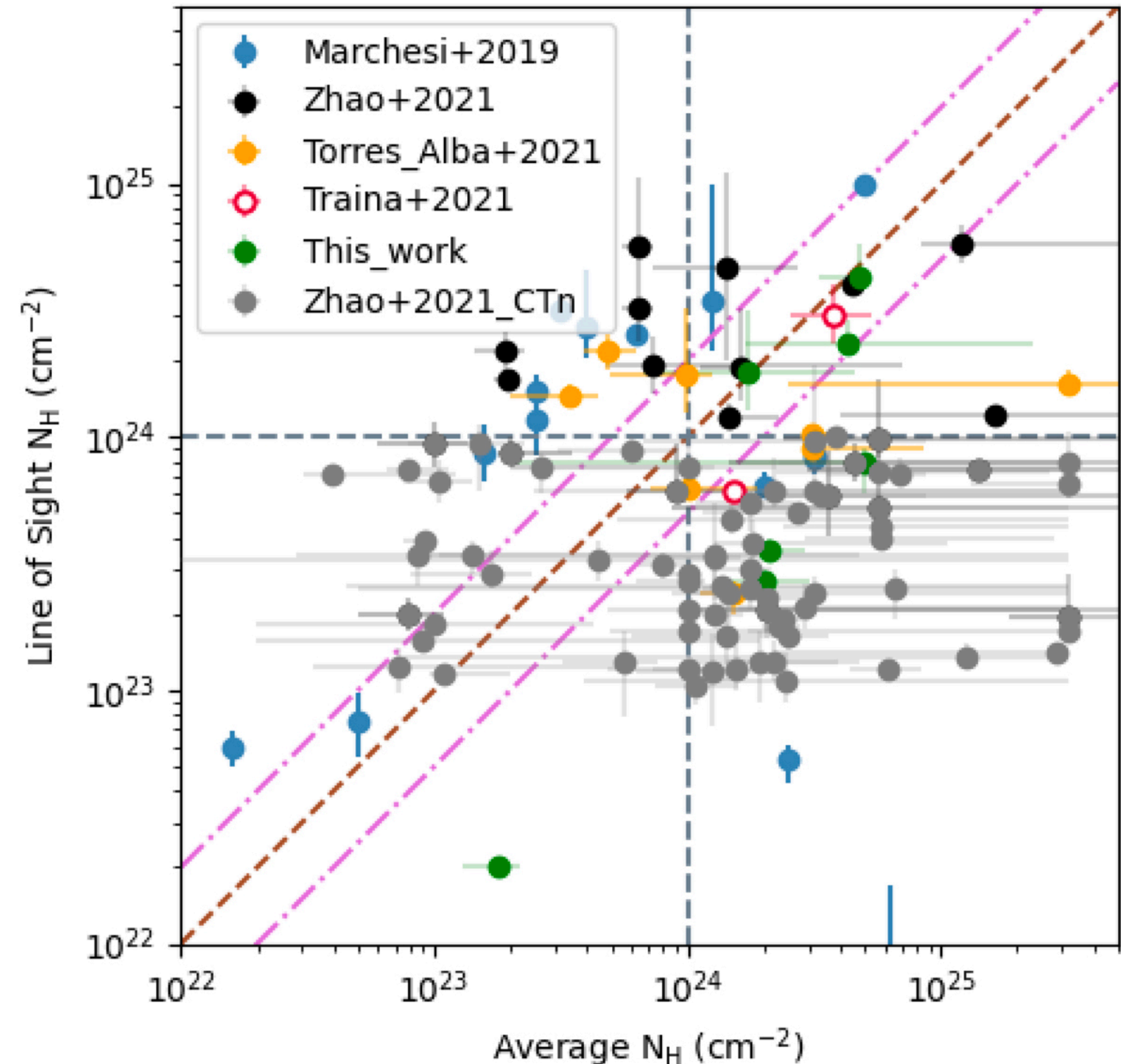


Marchesi et al. 2022 (<https://ui.adsabs.harvard.edu/abs/2022ApJ...935..114M>)

Piercing through the clouds: a multiwavelength study of obscured accretion in nearby supermassive black holes: further results and expected developments



- Leading author of one of the other five papers, D. Sengupta, is a PhD student at Unibo under the co-supervision of the PI, as well as an INAF associate: this paper reported on the inhomogeneity of the medium surrounding the accreting supermassive black holes (as shown in the figure on the right: the average column density significantly differs from the line-of-sight one, suggesting a clumpy distribution of the medium).
- In three of the remaining four papers, the PI is second or third author.
- In the coming year, the INAF contribution to the project is expected to remain stable; several papers are in preparation.



Sengupta, Marchesi et al. (2023; <https://ui.adsabs.harvard.edu/abs/2023A%26A...676A.103S>)